CONDITION

Perichondritis

Perichondritis is an infection of the tissue surrounding the cartilage of the outer ear.

WHAT IT IS
Infection around the cartilage of the outer ear

BODY SYSTEM
Skin and outer ear cartilage

MAIN SYMPTOMS
Ear pain, swelling, warmth, redness

WHAT CAUSES IT
Bacterial infection after cartilage injury

HOW IT IS DIAGNOSED
Ear examination, with culture of any drainage

MAIN TREATMENT
Antibiotics, with drainage if an abscess forms

CAN IT BE CURED?
Yes - prompt treatment usually clears the infection

IS IT AN EMERGENCY?
Sometimes - with fever, rapid spread, or severe illness

LONG-TERM OUTLOOK
Usually full recovery; delayed care may permanently change ear shape

Overview

Perichondritis is inflammation and usually infection of the tissue covering the cartilage of the outer ear. This covering is called the perichondrium. Cartilage gives the upper and middle parts of your ear their shape.

The condition usually affects the firm part of the visible ear, called the pinna or auricle. It often does not affect the soft earlobe because the earlobe contains fat rather than cartilage.

Perichondritis matters because cartilage has a limited blood supply. Swelling or a collection of pus can separate the cartilage from the tissue that nourishes it. Without prompt treatment, some cartilage may become damaged, causing a lasting change in the ear's shape.

Most cases can be treated successfully, especially when care begins before an abscess or cartilage damage develops. A painful, swollen outer ear should be assessed promptly rather

than watched for several days at home.

Symptoms

Symptoms usually affect one ear. They may begin after an injury, piercing, procedure, burn, or insect bite, although sometimes there is no clear trigger.

Common symptoms include:

Redness may be harder to see on brown or black skin. Increasing warmth, swelling, tenderness, or a change from your usual skin colour can be more useful signs.

If an abscess forms, there may be a soft or fluid-filled swelling. Pus may drain from the skin or a piercing site. Pain can become stronger, and the normal folds of the ear may look less defined.

Some people develop fever or feel generally unwell. These symptoms can suggest a more extensive infection and need urgent assessment.

Perichondritis is different from an infection limited to the ear canal. Ear-canal infections often cause pain when the small flap in front of the canal is pressed, itching, canal swelling, or discharge from inside the ear. The two conditions can occur together, so an examination is needed to tell them apart.

- Pain or tenderness in the outer ear
- Swelling, warmth, and redness or discoloration
- A feeling that the ear is thickened or unusually firm
- The upper ear becoming more swollen while the earlobe remains normal

Causes and risk factors

Perichondritis usually begins when bacteria enter through damaged skin and reach the tissue around the cartilage. Pseudomonas aeruginosa is an important cause, particularly after a piercing through the upper ear cartilage. Staphylococcus aureus and other bacteria can also be involved.

Cartilage piercing carries more risk than earlobe piercing because cartilage receives less blood and may heal more slowly. Contaminated equipment or aftercare water can introduce bacteria. Pressure from tight jewellery may also damage the skin.

Other possible triggers include:

Diabetes or a weakened immune system may make an infection harder to control. However,

perichondritis can also occur in otherwise healthy people.

Not every painful, swollen ear is infectious perichondritis. Allergic reactions, blood collecting after an injury, skin infection, gout, and inflammatory conditions can look similar. Relapsing polychondritis is a rare immune condition that causes repeated inflammation of cartilage, often in both ears or in other parts of the body. It requires a different assessment and treatment.

- Cuts, scratches, bites, or burns involving the ear
- Contact sports or other direct injuries
- Ear surgery or another procedure involving cartilage
- Acupuncture through the outer ear
- An untreated infection of the external ear
- Repeated pressure or picking at the skin

Diagnosis

Perichondritis is mainly diagnosed by examining the ear and asking how the symptoms started. A clinician will look at which parts of the ear are affected, whether the earlobe is spared, and whether there is an abscess or damaged tissue.

They may also examine the ear canal and eardrum to check for another source of infection. Recent piercings, injuries, surgery, burns, and previous antibiotic treatment are relevant.

If there is drainage or an abscess, a sample may be sent for culture. This laboratory test identifies the bacteria and helps show which antibiotics like amoxicillin or doxycycline are likely to work. Treatment may need to begin before the result is available.

Blood tests are not always needed. They may be used if you have fever, extensive swelling, a weakened immune system, or signs that the infection has spread.

Imaging is also uncommon in a straightforward case. A scan may be considered when the diagnosis is uncertain or there is concern about a deep infection, extensive abscess, or spread into nearby tissues.

Treatment and management

Perichondritis needs antibiotic treatment because infection around cartilage is unlikely to be controlled reliably with home care alone. The antibiotic is chosen to cover the bacteria

commonly responsible, including Pseudomonas when appropriate. Culture results may later lead to a change in treatment.

Some people with early infection and no abscess can be treated with antibiotics taken by mouth. More severe infection may require antibiotics through a vein and care in hospital. Treatment choices are influenced by the extent of infection, local resistance patterns, culture results, allergies, age, pregnancy, and other health conditions.

An abscess usually needs to be opened and drained. Antibiotics cannot always reach a closed pocket of pus effectively. An ear, nose, and throat specialist may remove damaged tissue and place a dressing or small drain. A pressure dressing can help keep the tissue next to the cartilage while it heals.

If a piercing is involved, a clinician may recommend removing or replacing the jewellery. Do not force out embedded jewellery or try to drain the swelling yourself. Closing the surface of a piercing while infection remains underneath can also cause problems, so removal should be guided by the person assessing the ear.

Pain relief and cool compresses may help with discomfort, but they do not replace antibiotics or drainage. Protect the ear from rubbing, headphones, helmets, swimming, and further injury while it heals.

Close follow-up is important. The ear may need to be checked again to confirm that pain and swelling are improving. Take antibiotics for the full period prescribed, even if the ear starts to feel better. Seek another assessment if symptoms worsen or do not begin improving as expected.

Complications

An abscess can interrupt the cartilage's blood supply. This may cause cartilage death, called necrosis. As the ear heals, scar tissue can change its shape. This is sometimes described as a cauliflower-ear deformity.

Possible complications include:

Severe complications are less likely when treatment starts promptly. If a lasting deformity develops, reconstructive surgery may be an option after the infection and inflammation have fully settled.

- A cartilage abscess
- Permanent thickening or distortion of the outer ear
- Recurrent infection

- Infection spreading into nearby skin or deeper tissues
- The need for surgery to remove damaged tissue

Prevention

Not every case can be prevented, especially when there is no clear injury or source. You can lower the risk by protecting the skin and cartilage of your ears.

Cartilage piercings have a greater risk of serious infection than earlobe piercings. If you choose one, use a trained professional who follows local licensing and infection-control standards. Sterile, single-use needles and appropriate jewellery reduce avoidable injury and contamination.

Follow the written piercing aftercare instructions. Wash your hands before touching the area, and avoid picking, squeezing, or applying unapproved products. Do not swim while a new piercing is healing if your aftercare professional advises against it.

Protect your ears during activities where repeated friction or impact is likely. Clean cuts according to first-aid guidance and get embedded objects or badly damaged jewellery assessed rather than removing them forcefully.

After ear surgery or another procedure, follow the wound-care plan and report increasing pain, warmth, swelling, or drainage promptly.

Living with it and what to expect

With effective treatment, pain and swelling often begin to settle over the following days. The full appearance of the ear can take longer to return to normal. Recovery time is affected by whether an abscess formed, how much cartilage was involved, and how quickly treatment began.

You may need more than one review. Culture results can require a change in antibiotic, and a drained abscess may need dressing care. Keep the ear clean and dry as directed, and avoid pressure from sleeping on that side or wearing equipment over the ear.

Most people treated early recover without an ongoing effect on daily life. Perichondritis is not usually a lifelong condition. However, cartilage that has already been destroyed does not regrow in its original shape, so some people are left with thickening or deformity.

Repeated episodes are not typical after a single injury has healed. If inflammation keeps returning, affects both ears, or involves the nose, joints, eyes, breathing, or hearing, further

assessment may be needed for a non-infectious cartilage condition.

When to get medical help

Arrange same-day medical assessment for a painful, warm, or swollen outer ear, especially after a cartilage piercing, injury, burn, or ear procedure. Do not wait for pus to appear. Early treatment helps protect the cartilage.

Seek urgent medical care if:

Call emergency services or go to an emergency department if you become confused, faint, severely weak, have trouble breathing, or develop other signs of severe illness. These are not routine features of perichondritis but can occur with a serious spreading infection.

Routine follow-up is still important once treatment has started. Attend planned reviews even if symptoms are improving, particularly if an abscess was drained or a dressing was placed.

- Swelling or pain is rapidly increasing
- There is pus or a soft, fluid-filled swelling
- The ear is becoming dark, pale, blistered, or misshapen
- Redness or swelling is spreading onto the face or scalp
- You have fever or feel generally unwell
- Symptoms are worsening despite antibiotic treatment
- You have diabetes or a weakened immune system

Common questions

Will perichondritis go away on its own?

It should not be expected to clear safely without treatment. Infection around cartilage can worsen even when the skin opening looks small. Prompt antibiotics, and drainage when needed, lower the risk of permanent cartilage damage.

Is perichondritis contagious?

Perichondritis itself is not usually passed from one person to another through ordinary contact. The bacteria involved may be present on skin, equipment, or in water. Do not share piercing equipment, towels that contact drainage, or products used on an infected ear.

Why is my earlobe not swollen?

The earlobe does not contain cartilage, so classic perichondritis often affects the upper ear while sparing the lobe. Swelling that includes the earlobe may point toward a skin infection or another condition, although patterns are not always clear-cut.

Should I remove an infected cartilage piercing?

Do not force out jewellery, especially if it is embedded or the ear is very swollen. A clinician may remove or replace it, but the safest approach depends on the location, drainage, and condition of the skin and cartilage.

What is the difference between perichondritis and cellulitis?

Perichondritis affects the tissue around cartilage and commonly spares the earlobe. Cellulitis is an infection of the skin and tissues underneath it and may involve the entire outer ear, including the lobe. Examination is often needed to distinguish them.

Can my ear return to its normal shape?

It often does when treatment begins before cartilage is damaged. If an abscess has interrupted the blood supply or cartilage has died, some change in shape may remain. Reconstructive options can be discussed after the infection has completely resolved.

Sources

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